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Pet ownership and human health: a brief review of evidence and issues

June McNicholas, Andrew Gilbey, Ann Rennie, Sam Ahmedzai, Jo-Ann Dono, Elizabeth Ormerod

Research into the association between pet ownership and human health has produced intriguing, although frequently contradictory, results often raising uncertainty as to whether pet ownership is advisable on health grounds.

The question of whether someone should own a pet is never as simple as whether that pet has a measurably beneficial or detrimental effect on the owner's physical health. The emotional bond between owner and pet can be as intense as that in many human relationships and may confer similar psychological benefits. Death of a pet can cause grief similar to that in human bereavement, whereas threat of loss of a pet may be met with blunt refusal and non-compliance with advice on health.

We examine the current evidence for a link between pet ownership and human health and discuss the importance of understanding the role of pets in people's lives.

Is pet ownership associated with human health?

Research dating from the 1980s popularised the view that pet ownership could have positive benefits on human health. Benefits ranged from higher survival rates from myocardial infarction; a significantly lower use of general practitioner services (prompting some researchers to speculate on considerable potential savings to health expenditure); a reduced risk of asthma and allergic rhinitis in children exposed to pet allergens during the first year of life; a reduced risk of cardiovascular disease; and better physical and psychological wellbeing in community dwelling older people. No studies have found significant social or economic differences between people who do or do not have pets that would adequately explain differences in health outcome, leading to the belief that pet ownership itself is the primary cause of the reported benefits.

Although the research did much to raise awareness of the importance that people attach to their pets, recent studies have failed to replicate the benefits. A review of the association between pets and allergic sensitisation found inconsistent results for cat ownership between studies of similar design, whereas dog ownership seemed to have no effect or even protected against specific sensitisation to dog allergens and allergic sensitisation in general. Other studies on the subject suggest that exposure to pets may be beneficial provided that exposure is sufficient, as lower levels may enhance sensitisation whereas higher levels may protect against sensitisation. Yet others suggest that the effects may heavily depend on age at exposure and type of pet.

Similarly, recent research has failed to support earlier findings that pet ownership is associated with a reduced risk of cardiovascular disease, a reduced use of general practitioner services, or any psychological or physical benefits on health for community dwelling older people. Research has, however, pointed to significantly less absenteeism from school through sickness among children who live with pets.

Do we need a broader definition of health?

The main issue may not be whether pet ownership per se confers measurable physical benefits but the role that pets have in individual people's lives—namely, the contributions of the pet to quality of life or the costs to wellbeing through a pet's death. This issue embraces a broader definition of health that encompasses the dimensions of wellbeing (physical and mental) and a sense of social integration.

Three potential mechanisms have been proposed to explain the association between pet ownership and benefits to human health (fig 1). The first is that there...
is no real association between the two, rather that
cofactors such as personality traits, age, and economic
or health status impact on the decision to own a pet
and thus produce an apparent link between pets and
health. So far, however, evidence is lacking that any of
these cofactors account for both health promoting
attributes and propensity to own pets, suggesting that
health benefits, when reported, may be attributable to
some aspect of pet ownership.

The second proposal is that pets may enhance social
interactions with other people, thus providing an
indirect effect on wellbeing. Social contact has been long
recognised as beneficial in that it alleviates feelings of
loneliness and social isolation. Pets undoubtedly act as
"social catalysts," leading to greater social contact
between people. These factors may be particularly
important for those at risk of social isolation, such as
elderly people or people with physical disabilities, who
lack many of the opportunities for social interactions of
their more able bodied peers.

The third proposal focuses on ways in which pet
ownership may exert a direct effect on human health
and wellbeing through the nature of the relationship.
Close human relationships have a powerful influence on
wellbeing by providing emotional support. They may
reduce perceptions of stressful events thus protecting
against anxiety related illness, may give confidence that
successful coping strategies can be found to deal with
stress, and may enhance recovery from serious illness
such as stroke, myocardial infarction, and cancer. These
aspects of a relationship are collectively referred to as
social support. Social relationships, or the lack of, seem
to constitute a major risk factor for health, rivaling the
effects of well established risk factors such as cigarette
smoking, blood pressure, blood lipid concentrations,
obesity, and lack of physical activity.

The value of companionship
Companionship—a commonly stated reason for pet
ownership—is regarded as theoretically distinct from
social support in that it does not offer extrinsic support
but provides intrinsic satisfactions, such as shared
pleasure in recreation, relaxation, and uncensored
spontaneity, all of which add to quality of life. Thus
companionship may be important in fostering positive
mental health on a day to day basis, whereas social
support may be of particular value in buffering threats
to mental health and wellbeing from real or perceived
stressors. Figure 2 illustrates the inter-relationship
between functions served by pet ownership and
human health outcomes.

Although research has primarily focused on
human relationships as providing support and
companionship, it is a short step to extrapolating these
to pets. Studies have shown that the support from pets
may mirror some of the elements of human
relationships known to contribute to health.
Although support from pets should not be regarded as
a replacement for help from people, the fact that pets
are not human confers certain advantages; the
relationships are less subject to provider burnout or to
fluctuations, and they do not impose a strain or cause
concern about continuing stability. Relationships with
pets seem to be of value in the early stages of bereave-
ment and after treatment for breast cancer.

Why pet ownership should be taken
seriously
The question of whether a person should acquire a pet
or continue to own a pet requires careful consideration
of the balance between benefits and potential
problems. About half of households in the United
Kingdom own pets. Most pets are valued as family
members. Conflict between health interests and pet
ownership can cause non-compliance with advice on
health. Some sources estimate that up to 70% of pet
owners would disregard advice to get rid of a pet owing
to allergies, whereas reports abound of older people
who would continue to own pets because of a sense of
companionship.
Commentary: Pets—pleasures and problems

Richard Mayon-White

Good health is more than the absence of disease, and the review by McNicholas and colleagues makes a strong argument that the companionship of pets contributes to wellbeing. People decide to keep pets for reasons that go far beyond health, and there are social benefits when animals promote conversation and friendship. The debate about health effects of pet ownership has focused on the major problems of cardiovascular disease, mental health, and allergy. A point to add to the review is that the benefits partly depend on the type of animal. In a prospective study of one year survival after a myocardial infarct, dog owners were more likely to survive than cat owners and people who did not own pets. Although exercise from dog walking might be a factor, the improved survival was related to social support independent of physiological status.

On the fringes of the debate about health and pets are some unusual observations about benefits and hazards of pets. The ability of some dogs to give an early warning of an epileptic fit or a hypoglycaemia attack is one unusual benefit. An unusual observation of hazards is that pet owners may be particularly distressed by the loss of a pet if it was linked with a deceased spouse or if it offered companionship or social contact with people. For these reasons many people may appreciate help and advice on how to manage a pet in the event of a health problem in the family.

Animal welfare organisations cite allergies and the fear of zoonoses as common reasons for people giving up their pets. Yet in some cases this may not be necessary. Research from the University of West Virginia shows that simple, day to day hygiene and pet care can reduce allergic reactions by up to 95%. A recent review of pets in nursing homes provides a comprehensive list of potential health problems and steps that can be taken to avoid these. Many people would welcome advice and support to enable them to reconcile or manage pet ownership and health problems whenever possible without giving up a pet.

The loss of a pet may be particularly distressing for owners if it was linked with a deceased spouse or if it offered companionship or social contact with people. For these reasons many people may appreciate help and advice on how to manage a pet in the event of a health problem in the family.

Many people would welcome advice and support to enable them to reconcile or manage pet ownership and health problems whenever possible avoiding medical care through fear of being admitted to hospital or residential care as this often means giving up a pet.

People do not own pets specifically to enhance their health, rather they value the relationship and the contribution their pet makes to their quality of life. Greater understanding among health professionals is needed to assure people that they do not need to choose between pet ownership and compliance with health advice.

Contributors and sources: JMcN has special research interests in the influence of pet ownership on health and lifestyle. She was formerly based at the University of Warwick, her current work is with Dogs for the Disabled, the Society for the Protection of Animals Abroad, and Cats Protection, UK. She is a member of the Society of Companion Animal Studies. AG gained his doctorate from the University of Warwick, researching the role of pets in the alleviation of loneliness. AR and SA are members of the Society of Companion Animal Studies. JAD has a degree in psychology and is director of the Society of Companion Animal Studies. EO is chairwoman of the Society of Companion Animal Studies.

Competing interests: JMcN received a research award, 2000-2, from Masterfoods UK to investigate the role of pets in children’s health. AG was employed as a research assistant at University of Warwick, 1999-2003, funded by Waltham Centre for Animal Nutrition.

Summary points

Over 90% of pet owners regard their pet as a valued family member

Reluctance to part with a pet may lead to non-compliance with health advice

Pets may be of particular value to older people and patients recovering from major illness

The death of a pet may cause great distress to owners, especially when the pet has associations with a deceased spouse or former lifestyle

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